Date:

Friday, 02/05/2008 7:03:45 AM

User:

Linda Lacelle

Process Sheet

Customer

: CU-DAR001 Dart Helicopters Services

Job Number **Estimate Number**

: 38977 : 11914

P.O. Number

This Issue

Prsht Rev.

First Issue

: 02/05/2008

: NC

: 11

Type

: SMALL /MED FAB

: 36585 **Previous Run**

Checked & Approved By

Comment

Written By

: Est

B99.12.21 Re-format EC

S.O. No. :

Drawing Name

: TUBE ASSEMBLY

Part Number

: D2003009 · UNDER REVIEW

Drawing Number

Project Number

: N/A : B

Drawing Revision

Material

: 09/05/2008 **Due Date**

Qty:

5 Um:

Each

Additional Product

Job Number:



Seq. #:

1.0

Machine Or Operation:

Description:

6061-T6 Tube .375 x.035W

Firesleeve-crkl .375IDia

5x 12.48

Comment: Qty.:

5.4422 f(s) 1.0884 f(s)/Unit Total:

Cut as per template D2003-007 (12.44" long)

Material:3/8"Æ x 0.035" wall 6061-T6 tubing Batch: M104921

Cut: 12.38" long as per Dwg D2003

Material: M2650-6 Heat sleeve

Batch: MIDG 781

M26506



Comment: Qty.:

5.2000 f(s)



Firesleeve-crkl .375lDia

1.0400 f(s)/Unit Total:

3.0

MS208196D

Sleeve



Comment: Qty.:

2.1000 Each(s)/Unit Total:

10.5000 Each(s



Pick:

2

Qty

Part Number Description

MS20819-6D Sleeve $M107534 \times 5 = 2t_3 10$

Dart Aerospace Ltd

W/O:		WORK ORDER CH	ANGES				
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #: Fault Category:	NCR: Yes	No DQ	A:	Date:	

QA: N/C Closed: ____ Date: ____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)													
		Description of NC		Corrective Action Section B	Verification	Annroyal	A								
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspecto							
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Date: .Friday, 02/05/2008 7:03:46 AM User: ¿ Linda Lacelle **Process Sheet** Customer: CU-DAR001 Dart Helicopters Services Drawing Name: TUBE ASSEMBLY Job Number: 38977 Part Number: D2003009 Job Number: Seq. #: Description: **Machine Or Operation:** 4.0 AN8186D Nut Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s) Pick: Part Number Description Batch AN818-6D 5.0 D2182 Comment: Qty.: 1.8750 f(s) 0.3750 f(s)/Unit Total: Pick: Part Number Description Batch D2182-945 (old one) Heat shrink CUT 4.50" LONG SMALL & MEDIUM FAB RESOURCE 1 6.0 SMALL FAB 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Form tube as per template D2003-009 INSPECT WORK TO CURRENT STEP 7.0 QC5 Comment: INSPECT WORK TO CURRENT STEP 8.0 SMALL & MEDIUM FAB RESOURCE 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Flair tube as per dwg D2003 2-Assemble as per Dwg D2003 9.0 QC5 INSPECT WORK TO CURRENT STEP Comment: INSPECT WORK TO CURRENT STEP

rospace	Ltd						
		WORK ORDER	R CHANGES				
STEP		PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
:	PAR #	#: Fault Category:	NCR: Yes	No DQ	A:	_ Date: _	
			QA:	N/C Close	d:	_ Date: _	
		WORK ORDER NON-CO	NFORMANCE (NC	R)			
	STEP		STEP PROCEDURE CHANGE :PAR #: Fault Category:	WORK ORDER CHANGES STEP PROCEDURE CHANGE By :PAR #: Fault Category: NCR: Yes QA:	WORK ORDER CHANGES STEP PROCEDURE CHANGE By Date :PAR #: Fault Category: NCR: Yes No DQ.	WORK ORDER CHANGES STEP PROCEDURE CHANGE By Date Qty :PAR #: Fault Category: NCR: Yes No DQA: QA: N/C Closed:	WORK ORDER CHANGES STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr : PAR #: Fault Category: NCR: Yes No DQA: Date: QA: N/C Closed: Date:

NCR:		\	WORK ORD	ER NON-CONFORMAN	CE (NCR)			
		STED Description of NC		Corrective Action Section B		Varification		
DATE	STEP	Section A			Verification Section C	Approval Chief Eng	Approval QC inspector	
		•						
						i		

Date:

Friday, 02/05/2008 7:03:46 AM

User:

Linda Lacelle

Customer: CU-DAR001 Dart Helicopters Services

Process Sheet

Drawing Name: TUBE ASSEMBLY

Part Number: D2003009

Job Number:

Job Number: 38977

Seq. #:

Machine Or Operation:

Description:

10.0

PACKAGING 1

PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1

Identify and Stock Location:

11.0 QC21



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-05-08

Dart Aerospace Ltd

W/O:		WORK ORDER CHAI	NGES					
DATE	STEP	PROCEDURE CHANGE	В	у	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #: Fault Category:	NCR: \	res N	DQA	۱:	Date:	

QA: N/C Closed: ____ Date: ___

NCR:		W	WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B		Verification	A	A				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector				
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	DESIG	4	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
	CHEC	KE#	APPROMED	DRAWING NO. REV. 8
	4	15	1 47	D2003 SHEET 1 OF 2
ı	DATE	,		TITLE SCALE
	99.0	06.08		206 CABIN HEATER TUBE ASSEMBLIES NTS
	Α		90.04.09	NEW ISSUE
	В		99.06.08	UPDATE PER TEMPLATES; ADD P/N'S; 0.025 TUBING NOW 0.035 (TSR1049)

UNDER REVIEW Some Flat

CL. OS. 21 CB Tempths wrong 10 39977

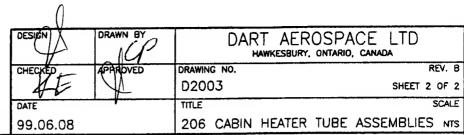
										dies arond	VO(0) / V /	
P/N	TEMPLATE	HEATSLEEVE LENGTH ¹	CUT LENGTH OF TUBE ²	MS20819-8J SLEEVE	AN818-8J NUT	MS20819-8D SLEEVE	AN818-8D NUT	MS20819-6D SLEEVE	AN818-6D NUT	DESC.	MATERIAL ^{4/8/7}	VENDOR OR SPEC
D2003-001	T2003-001	5.2	6.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-003	T2003-003	7.3	8.12					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-005	T2003-005	9.8	10.62					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-007	T2003-007	20.0	19.63					2	2	TUBE ASS'Y	.6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-009-	- T2003-009 -	< 12.38	12.44 -	į				2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-011	T2003-011	33.31	32.38					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-013	T2003-013	12.7	13.54					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-015	T2003-015	17.2	18.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-017	T2003-017	17.0	16.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-019	T2003-019	9.8	10.62			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-021	T2003-021	N/A	2.25			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-023	T2003-023	4.5	5.33			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-025	T2003-025	9.8	10.60			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-027	T2003-027	7.25	7.38			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-029	T2003-029	17.2	18.00			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	•AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-037	T2003-037	24.81	23.38	2	2	¥.				TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-041	T2003-041	6.0	5.88	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-049	T2003-049	33.2	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-077	T2003-077	N/A	6.25				İ	1	1	JET	6061-T6 0,375 OD x 0.035 W	WW-T-700/6
D2003-101	T2003-101	13.25	13.13					2	2	TUBE ASS'Y	6061-T6 0,375 OD x 0.035 W	WW-T-600/6
D2003-103	T2003-103	12.38	12.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-105	T2003-105	10.75	10.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-107	T2003-107	12.75	12.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-109	T2003-109	8.25	8.125			2	2	I		TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-111	T2003-111	4.75	4.625			2	2]		TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-116	T2003-116	4.0]]		HEATSLEEVE	M2650-20 CRINKLE-SOFT	STRATOFLEX
D2003-120	T2003-120	4.0]		HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-14	T2003-14	4.0]			I		HEATSLEEVE	M2650-14 CRINKLE-SOFT	STRATOFLEX
D2003-16	T2003-16	4.0							I	HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-205	T2003-205	9.75	9.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-207	T2003-207	3.75	3.75					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
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W/O:			W	ORK ORDER CH	ANGES			12 1. 11	
DATE	STEP	PRO	OCEDURE CH	ANGE		Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	-	PAR #:	Fault Cat	edon.	NC	R. Ves N	lo DOA:	Date:	
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NCR:		V	VORK OR	DER NON-CONFO	RMANCE	(NCR)	ı		
		Description of NC		Corrective Action	Section B		Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Descrip Chief Eng	tion	Sign & Date	Section C	Chief Eng	QC Inspector

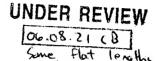
NCR:		WORK ORDER NON-CONFORMANCE (NCR)											
-,		Description of NC		Corrective Action Section E	3	Verification	Approval Chief Eng	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C		QC Inspecto					
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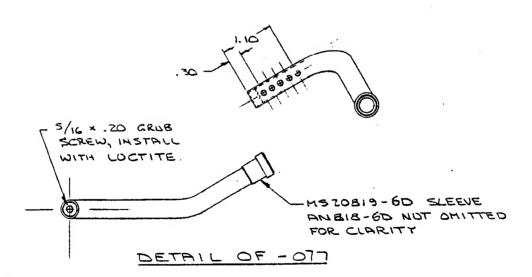






Notes:

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.



Dart Aerospace L	.td
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W/O:		WORK ORDER CHANGES											
, DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector						
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Part No:	PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:
. ,		8	QA: N/C	Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
DATE		Description of NC	Corrective Action Section B			Verification	Annroval	Approval			
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector			
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